Department of Public Works
Engineering Division

July 10, 2015

Dr. Thomas Mumley
Regional Water Quality Control Board, San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: NPDES Permit No. CAS612008, CITY OF BERKELEY COMMENTS ON TENTATIVE ORDER

Dear Dr. Mumley:

By email dated May 11, 2015, the Water Board indicated it would accept written comments on the Draft Municipal Regional Stormwater Permit (Draft MRP) until 5 pm on July 10, 2015. It was requested that written comments be submitted to the following email address: mrp.reissuance@waterboards.ca.gov. and that all attachments to the email should be submitted as one electronic file with a file name clearly identifying the commenting entity. In response to this Water Board notice, I am filing these comments on behalf of the Alameda Countywide Clean Water Program (ACCWP) with attachments in the form requested.

Thank you for the opportunity to file these comments – we appreciate all the time that you and your staff have taken to meet with us and other MS4s in an attempt to reach agreement on this very complex next phase of the MRP. Our comments on the highest priority issues are below. Additional specific comments on these and other provisions are included in the attached table.

Provision C.12: Polychlorinated Biphenyls (PCBs) Control

Provision C.12.a: The 0.5 kg/yr and 3.0 kg/yr PCB load reduction performance criteria should be removed.

1) There is no reasonable certainty regarding the ability of best management practices (BMPs) to meet the proposed load reduction performance criteria. The Fact Sheet acknowledges that achievement of the performance criteria is speculative at this stage of load reduction methodology, and describes a default approach to estimating load reductions resulting from foreseeable control measures implemented during the permit term. Most of the BMPs evaluated during MRP 1 that were thought to have promise turned out to have very limited load reduction benefits. For example, it was thought that enhanced street sweeping and drop inlet cleaning, and diversion of stormwater flows to sanitary sewers, would be able to achieve significant reductions in PCB loads. Further study during MRP 1 has determined that this is not the case.

Only two BMPs as more fully discussed below currently appear to have the potential to significantly reduce PCB loads: source property identification and remediation, and managing PCB containing waste during building demolition. However, lack of reliable data and Permittees' inability to control

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all aspects of implementation mean there is no certainty that the stipulated load reductions could be achieved.

Source Property Identification and Remediation: Through previous investigations, Permittees have identified several sites in old industrial areas with significant PCB contamination. Based upon this finding, we are currently conducting a screening of all old industrial parcels throughout the County, and conducting PCB analysis of sediment adjacent to the sites that appear to have the highest likelihood of being a PCB source property. Through this process we may find some sites that are significant sources of PCBs. However, the number of sites will probably be relatively low, and it will be difficult or impossible to develop an accurate estimate of the annual load of PCBs from these sites in advance of their investigation and remediation under the direction of appropriate state and federal agencies.

Managing PCB Containing Building Demolition Waste: There are significant quantities of legacy PCBs in certain buildings (an estimated 4.7 kg average in 1950 to 1980 masonry/concrete structures), but the amount of PCBs released to the storm drain system during demolition is completely unknown. Permittees have conducted an extensive literature review in an effort to develop a reasonable estimate. There is very little published data, a wide range of estimates that rely on personal judgment for key assumptions, and no studies of PCBs released from building demolition to storm water runoff. Developing an accurate estimate within several months (April 2016) or even several years is infeasible given the wide variation from site to site in the mass of PCB containing hazardous waste, the concentration of PCBs, the types of waste, the type and size of structure, the control BMPs implemented, and the type of demolition. The proposed 3 kg/yr load reduction relies heavily on the assumed load reduction from managing building demolition waste. This assumption is unfounded and cannot form the basis for a regulatory PCB load reduction requirement.

2) The Draft Permit states that Permittees need to develop an allocation scheme or the default will be by population. Neither option is feasible. There are several problems with developing an alternative load allocation among Permittees in addition to the unrealistic timeframe (i.e., April 2016): (1) There is no legally binding mechanism to reallocate loads; and (2) Permittees whose allocation would rise under an alternative allocation could not agree to a higher allocation and put their jurisdiction in jeopardy of non-compliance when there is no certainty regarding meeting the target. A population-based allocation is not feasible as some of our newer cities (e.g., Dublin, Pleasanton, Livermore, Fremont) have relatively large populations and very little old industrial or old urban (pre-1980) development and therefore, very little opportunity for PCB reduction credit through either building demolition (C.12.f) or Green Infrastructure implementation (C.12.c).

3) PCB load reductions are not required by the PCB TMDL. The TMDL Implementation Plan states that PCB reductions should be evaluated after 10 years (i.e., 2020). In 2020, after MRP 2 requirements have been completed, we will have a much better understanding of what can be achieved and through which combination of control measures and will have provided updates to the initial load estimation methodologies. Load reduction targets could then be set at that time.

The permit needs to provide Permittees with a clear and feasible path to achieving compliance based on implementation of PCB control programs described in C.12 that can realistically be planned and completed during the permit term. Therefore, the load reduction targets should be removed, especially the 0.5 kg/yr criterion for the second year of the permit, which is unnecessary and burdensome.

If the 3.0 kg/yr performance criterion for the permit term is retained, it should be explicitly stated in the form of an action level to avoid any confusion between the permit's performance metrics and effluent limits; clarifying this legal definition has important implications for enforcement and the risk

of potential third party lawsuits. Also, the Permit Fact Sheet should fully describe the default interim accounting method for all of the proposed PCB control measures.

Provision C.12.b: Revise documentation approach for interim load estimation methodology, if submittal is required allow at least twelve months after the permit adoption, especially if documentation of load estimation methodology is required.

The Permit notes that the "full description of measurement and estimation methodology" required in this provision is intended as a documented version of the default interim method in the Fact Sheet, applicable to this permit term. In conjunction with the above requested changes in C.12.a, this submittal should be deleted as unnecessary, since a description of a permanent method will be provided before the end of the permit per Provision C.12.b.iii(3). If numeric load reduction targets are retained, the Fact Sheet should document all of the parameters and assumptions involved in this method, which BASMAA representatives provided to Water Board staff in summary form.

Provision C.12.f: Managing PCBs waste in building demolitions should be part of a comprehensive federal and State effort to close gaps in the existing regulatory structure, and recognize limits to Permittee jurisdiction.

1) Permittees are willing to partner with other agencies in this effort but cannot be the leads for implementing necessary upgrades or interpretations to federal and state PCB regulations. The Draft Permit recognizes that working with state and federal agencies is necessary to create a coordinated program for management of PCB-containing building materials, like those successfully implemented for asbestos or lead-based paint. ACCWP Permittees and other municipalities collaborated with the San Francisco Estuary Partnership's PCBs in Caulk Project, which identified gaps in existing information and regulatory approaches to PCBs in existing buildings. Permittees can encourage proponents of demolition projects to abate PCB containing materials in accordance with existing regulations but cannot pre-empt or anticipate future federal and state regulations.

2) Discussions with Water Board staff indicate that USEPA Region 9 contacts overseeing PCB clean-ups will not commit to timely review or response of proposed abatement plans for projects with PCB-containing building materials, if Permittees were to require documentation of abatement plan submittal to USEPA prior to issuing demolition permits. Such uncertainty would expose the projects to highly uncertain time and cost impacts.

3) The Fact Sheet lacks clarity regarding the default assumptions used to estimate potential load reductions associated with this provision, which are subject to especially large uncertainties due to lack of published data on release to runoff of PCBs in building materials or from demolition activities. USEPA has not shared results of recent clean-ups or research which would inform updated guidance and best practices, nor made any statements on whether demolition activities will be addressed in its PCB rulemaking process (originally announced in 2010).

Permit language should recognize that a truly comprehensive framework will take longer than 3 years and that Permittees have no control over the participation or action timelines of federal, state or regional agencies.

Provision C.10. Trash Load Reductions

1) The schedule for meeting the 70% and 100% trash reduction targets should be extended.

The City has made a great deal of progress over the last 5 years in trash load reductions. However, the MS4s are still determining which BMPs are most effective as reductions are often variable and difficult

to quantify. Therefore, informed decisions regarding the most effective expenditure of public funds cannot be made until more certainty regarding which BMPs will lead to full compliance. For example, through the Capturing California Trash Grant, BASMAA is conducting a study to determine if retractable drop inlet screens in combination with frequent street sweeping has a comparable effectiveness to full trash capture devices. If the BASMAA study shows full trash capture equivalence, using inlet screens in combination with street sweeping may be a more efficient approach to compliance due to reduced maintenance cost or they could be used in areas where full trash capture systems cannot be installed.

Another reason to extend the compliance dates is that many of the highest trash problem areas are along Caltrans roadways. Permittees have existing maintenance agreements with Caltrans for many portions of Caltrans roadways. Caltrans has a stormwater permit requiring similar trash load reductions, and Caltrans is interested in partnering with Permittees to revise maintenance agreements and share in the cost of installation and maintenance of full trash capture devices along its roadways. Caltrans has until 2025 to meet its reduction targets under the Caltrans statewide permit. Given the differences in the timelines in the Tentative Order and the Caltrans permit, this makes it difficult to partner and collaborate with Caltrans on trash load reduction in this region and places and unfair burden on the City.

The reduction targets should be changed to July 1, 2020 for a 70% reduction and July 1, 2025 for 100% reduction. These are still extremely aggressive targets. A useful comparison are the State's requirements for reducing solid waste to landfills under AB939. AB 939 was passed in 1989 and required a 50% reduction in waste within 11 years (2000). As with trash, it was very difficult to establish a baseline even though the solid waste stream is much easier to measure than litter in the environment. Local and regional jurisdictions are now (26 years later) trying to achieve a 75% reduction. In addition, waste management agencies are not subject to the same funding constraints as stormwater programs are under Prop 218.

Smaller, less-urbanized jurisdictions should more easily be able to achieve the reductions under the extended schedule. However, for larger and more heavily trash-impacted jurisdictions it may be impossible to achieve required reductions even within the extended timeframe. This revised schedule would also line up with Caltrans' schedule and make it much easier to coordinate with Caltrans.

2) Source Control (C.10.b.iv): The maximum offset allowed for source control actions should be expanded.

The Alameda Countywide Storm Drain Trash Monitoring and Characterization Project already done by the ACCWP demonstrated an 8% reduction from existing source control actions. Existing source control actions could be enhanced to reduce trash further, and additional source control actions could be developed. In addition, source control is much more effective and efficient approach to reducing pollution as compared to removing pollutants once they are in the environment. The permit needs to encourage these source control efforts by increasing the maximum offset to at least 15%.

3) Additional Creek and Shoreline Cleanup (C.10.c.i): The cap on the maximum offset should be increased.

Municipalities spend a tremendous amount of resources to clean up trash from in and around local creeks and the Bay shoreline. This trash is directly impacting local waterways. However, the trash is often deposited along these waterways through mechanisms other than discharge from the municipal storm drain system. Cleanup efforts are often the most effective approach to reducing trash impacts to waterways, and these efforts should be encouraged. The maximum offset should be increased.

4) Visual Assessments should not be used to determine compliance.

The Visual Assessment Protocol has not been vetted sufficiently to be used as a Permit compliance tool: 1) The temporal and spatial variation is not well understood or quantified; 2) There is an element of subjectivity to the assessments that cannot be eliminated; 3) The definitions of generation rate categories (i.e., Very High, High, Moderate, and Low) are too broad to detect actual trash reductions in many cases; and, 4) How to account for random variation from one assessment to the next has not been determined. Conducting resource intensive visual on-land assessments is also very time consuming and takes very limited resources away from actual trash reduction efforts that directly improve water quality. Visual assessments should be used for only qualitative assessment during this permit term.

5) The requirement to map all private property down to 5,000 sq. ft. in moderate or higher trash generation areas should be deleted.

This mapping requirement will require a tremendous effort without any clear benefit. It is often nearly impossible to determine how storm drains are plumbed at older developments. Maps of these private storm drain systems are often non-existent or inaccurate. The requirement creates a situation that will lead private property owners to believe that the City is responsible for their private drainage. This requirement should be deleted.

6) The Receiving Water Observations requirement (C.10.b.v) should be removed.

Conducting receiving water observations is another requirement that will take significant resource without any clear benefit and will result in the diversion of resources from trash reduction efforts. No protocols have been established and there is tremendous variation in the amount of trash from site to site and over time depending on the timing and size of storm events. It is not clear that the data produced from this effort could guide future management actions.

Through the Capturing California Trash Grant, BASMAA is working with Algalita to develop a protocol for sampling and quantifying trash discharged during storm events. This requirement should be removed from this permit and reconsidered for the next permit once the protocol has been developed.

Provision C.3.j. Green Infrastructure

1) The schedule for developing the Green Infrastructure framework (C.3.J.i) should be extended to 24 months from the Permit effective date.

The new Green Infrastructure approach and requirements are very comprehensive, will require significant financial resources, and will require in-depth discussion and planning efforts by local agencies over upcoming years. The new Green Infrastructure Plan could cost between $300,000 and $500,000 for the City of Berkeley to prepare. This new requirement will reduce funding available for construction of Green Infrastructure. Specifically, based on the city of Berkeley's experience to date, the preparation of the plan will result in the elimination of two to four plant based green infrastructure sites throughout the City that would have otherwise been built. These efforts will significantly affect many areas of municipal government. Stated differently, this will be a major commitment for Permittees extending many years into the future.

It should be assumed that most Permittees will need to have the framework approved by their governing bodies rather than the city or county manager. The requirements of the framework are extensive. Developing a framework for approval by a governing body will require significant time and resources, and coordination and cooperation among various agencies with often conflicting priorities and constraints. The schedule for completion must be extended to 24 months from the Permit adoption.

2) Provide more flexibility for sizing treatment controls at road projects (C.3.j.1.g.).

Provision C.3.j.1.g requires public projects (e.g., roadway projects) to meet the C.3.d sizing criteria. The C.3.d. sizing requirement generally requires that the treatment system is about 4% of the area draining to the treatment system, has a minimum infiltration rate of 5 inches per hour, and has a specified type and depth of soil and gravel. As was learned through the Green Streets pilot projects required under the current permit, that standard is often impossible to achieve.

Roadway retrofit treatment projects are often highly constrained due to competing needs for space for pedestrian and bicycle traffic, Americans with Disabilities Act (ADA) compliance, as well as underground utilities. There is also often a large amount of runoff from adjacent private parcels that cannot be limited or diverted. The minimum 5 inch per hour infiltration rate will also preclude the planting of trees in the treatment area as trees need a slower draining soil (e.g., 3 to 4 inches per hour). Trees are an extremely desirable species to include in their green streets projects, and the City should be able to include tree wells within their treatment calculations. The requirement to meet the C.3.d sizing criteria is an undue cost burden on the City, EBMUD, PG&E, Comcast, AT&T and other utility companies due to the competing needs and underground congestion. The added utility coordination can double the City's design and construction management costs, extend project delivery times, and cause other underground utilities to relocate their facilities. We have not seen evidence that outreach to the Water Board outreaching to other utilities to solicit their input on impacts to their infrastructure and operations. We believe outreach to other agencies and companies is important and needs to be done to create a functional permit and weigh the impact to society. The requirement to meet the C.3.d sizing criteria will often not be possible to meet.

Greater flexibility should be included in the permit. The allowance for all Permittees to provide a single alternative approach is not feasible as local conditions and constraints vary among jurisdictions and across the region. At a minimum the provision should be revised to allow countywide programs to submit alternative approach.

Reporting

Reporting on 2 permits in one Annual Report is difficult and confusing. Many permit requirements are based on implementing requirements on a July 1 through June 30 implementation schedule. If a new permit with revised annual requirements becomes effective after July 1, it's not clear what portion of, if any, of those annual requirements needed to be implemented during the less than one year period of the old and new permit.
To avoid this problem, make the effective date of the new permit July 1, 2016. The schedule for completion dates could take into account the Permit adoption date as Permit adoption provides certainty.

It should be noted that these comments are provided solely to assist the Water Board's consideration of and potential reaction to concepts or language it may, in its discretion, elect to advance relative to the reissuance of the Municipal Regional Permit for stormwater discharges. It is not intended and should not be misconstrued as an offer to take on, or volunteer for, any potential permit requirement that represents a new program or higher level of service relative to the MRP or its predecessor permits.

Sincerely,

Sean Rose, Manager of Engineering

cc: Jim Scanlin, Alameda Countywide Clean Water Program